

JUN 21 1962

The Macdonald FARM Journal



23, No. 6

June, 1962



tight Silos

Four Wardens For Fabrics

Bulk Milk Coolers



THE MACDONALD LASSIE

Editorial

VI — A FORM OF PROGRESS?

Vertical integration, a subject which consistently made agricultural headlines three and four years ago, is back in the news again. Three events have focussed attention on vertical integration. They are appointment of a study committee by the Ontario government to consider the extent of vertical integration; an announcement by the chairman of the board of Robin Hood Flour Mills saying in part, "Farmers and businessmen are being forced to make a choice — do they wish to stay independent or become the hired hand — will they become captive or stay free"; and growing concern over the effect of vertical integration in the fruit and vegetable industry.

Since the first flush of excitement over vertical integration, Canadian farmers have gained some experience with it in different lines of production. Governments too, have had the opportunity to note its effects. Its good aspects and bad aspects, as seen from different points of view, have been discussed, expounded and studied at length. It has been both approved and condemned.

What is vertical integration? In its broadest definition, it includes contract farming. Those who distinguish between vertical integration and contract farming argue that vertical integration is the consolidation of a number of productive and marketing steps that are complementary one with the other, under one ownership and management. Contracting, they say implies an agreement between two or more parties to do certain things for certain considerations. Whether a contract is good or bad depends on the relative strength of the two parties and their ability to bargain.

The factors favoring vertical integration are many. Technological and scientific advances are major causes of integration. They introduce the need for greater technical skills, management ability and credit into the production process. Another major factor is the requirement of the merchandising industry for large quantities of product at a constant rate of supply and of constant quality. There are many

other factors depending upon the product concerned.

The major argument from the point of view of the farmer who is considering aligning himself with processors or feed companies must certainly be the assurance of a market. We are witnessing the end of individual selling by farmers. With few buyers and many sellers, there is a tendency by the sellers to cut prices to sell and the strong bargaining position of buyers also has a tendency to force down prices. Add to this momentary overproduction for the immediate market and it is obvious that there are major forces motivating producers to look for an assured outlet such as they are usually guaranteed through integration.

Unfortunately, as the broiler producers are now aware, vertical integration in their industry did not gear supply to demand. It merely established tremendous productive capacity. When certain groups tried to adjust their product to their demand, independents stepped in and filled the unused productive capacity and everybody in the producing end took a trimming.

This is another aspect of integration. It must gear itself to volume production. It is evident that this leads to oversupply of immediate markets — at least this was true for the broiler industry in spite of efforts to control production. However, we can also have temporary oversupply without integration. Just witness the dairy situation.

At present, there are serious problems being raised by vertical integration in several lines of production — vegetables, fruits, eggs, hogs — respecting the welfare of the "independent" producer. These, although of immediate concern, should iron themselves out as experience with this method of production grows.

In our view vertical integration or horizontal integration is simply the easiest form in which new machinery and new information can be incorporated into the production process of agriculture, given the agencies which exist in the industry. It would seem that some integration is inevitable if production is to be on a rational basis. Who will

control the integrating unit is the question for debate. If producers wish to achieve control, they can readily do so through their co-ops. If they lack imagination, then someone else will do it for them. Whatever happens, we can expect a highly competitive, very commercialized industry to emerge.

QUEBEC FARMERS' ASSOCIATION MEETS HON. ALCIDE COURCY, MINISTER OF AGRICULTURE

A delegation of Quebec Farmers' Association recently met Hon. Alcide Courcy to present him with several requests and suggestions for action by his Department. The Delegation included Cyril Dahms, president, of Huntingdon, Rudy Dallenbach, Knowlton, Mrs. Dan McKay, Dalhousie Station and Leslie Young, secretary. Hon. Courcy was accompanied by Mr. Glen Brown, parliamentary assistant, and Dr. Ernest Mercier, deputy minister.

The QFA asked for a provincial planning council for agriculture composed of government and farm leaders which would do long range planning of agricultural development in Quebec. It also asked the government to designate Brome County as a rural development area pointing out that competition for land use from the tourist and recreational industry is ruining the agriculture of the County and, unless it is developed rationally, will ruin the natural beauty of the County.

Compulsory vaccination of calves for brucellosis was also requested. The Association stated that there is a grave danger that in brucellosis-free areas cattle will lose their resistance to the disease which would allow disease outbreak to spread very quickly. QFA also requested enforcement of potato grading regulations in response to complaints by the consumers. The problem of trespass and vandalism was also brought to the Minister's attention with a plea for joint action by this Department with other government Departments.

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Observations

VIEW FROM AFAR

Would that we could see ourselves as others see us! True, it might be a disturbing view, but sometimes a view from afar helps to put matters back into perspective. This is as true for farmers as it is for factory workers or college professors. Every person, no matter how objective he may wish to be, if he is human enough to put down any roots at all or build up any attachments, necessarily develops some bias in his attitudes. What a world this would be without this stabilizing factor!

But it has its disadvantages. For instance, the human being who has enjoyed the same surroundings for a long time gradually comes to see but a part of them. We claim to have beautiful scenery and prosperous farms in Quebec. Strangers, on the other hand, may see mostly littered roadsides, gravel pits, pastures reverting to bush and sterile hillsides or frightening forests. Without these roots of familiarity

they are smitten by the scars on nature. With them, we see only the good and beautiful. Pretend you're a stranger, and look about you next time you go to town. 'Twill surprise, and probably shock you but it may also fill you with ideas for improvement of your surroundings.

MORAL OBLIGATION

Does the owner of land and water have a moral obligation to preserve it for future generations? Does he have the right to render it valueless, by mining the soil, by mismanagement, or by selling the sod or the gravel for a mess of money, to leave it gaping nakedly for the next generation? If the proprietor has a moral obligation is he accepting it today? Should we turn the moral obligation, if any, into a lawful obligation? Would this be an infringement on human "rights" and "independence"?

Answers. I leave to the reader

responsibility for the answers after he tells me whether he thinks the world owes him a living, or he owes the world his talents?

COVER PICTURE

Our cover picture, taken many short years ago, shows Jawt. Shurfelt and Radphus Getty preparing to mow. Mr. Getty is turning the stone. Photo by Norman Edson. For more information on Mr. Edson and his work see page 137. Close examination of this excellent photo shows hens watching the sharpening operation from a respectful distance beneath the buggy.

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GAS-TIGHT SILOS

are these the solution to grass silage problems?

Steel, glass-lined silos have been installed by several farmers in Quebec as well as on the feedlot of the Société des Terres Noires at Ste. Elizabeth. These gas-tight units have aroused the curiosity of some of our farmer readers, who want to know if it would pay them to install similar units. I cannot answer that question, but I have some information which I think will help answer it.

Research Results

The United States Department of Agriculture compared some of these units with a conventional silo for alfalfa at their Beltsville, Maryland, Agricultural Research Center (Agricultural Research, September 1961). They found storage losses were only 11.1% in the gas-tight silo compared with 22.6% for the conventional tower. We can calculate from these figures that it would take, using a conventional silo, a 16% yield increase to equal the savings in feed that is obtained by using the gas-tight unit. Since losses are considerably higher with horizontal silos, the gas-tight silo should show an even greater advantage over pit, trench or bunker type silos. This 22.6% loss is probably less than occurs making silage on most farms.

Considerable losses due to leaf shattering and mechanical and biological causes take place during haymaking, even with ideal hay-making weather and these losses

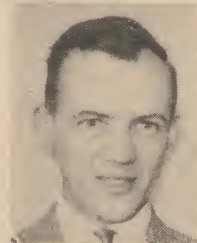
increase rapidly as weather deteriorates. The gas-type silo results in no greater losses than haymaking with the best weather conditions.

Feeding trials were also carried out in the Beltsville study in which it was demonstrated that the alfalfa stored in the gas-tight silo was superior to alfalfa from the conventional silo in animal acceptance, milk yields and body weight gains. However, alfalfa from either type of silo was not as digestible as hay made from the same field.

Forage stored in the gas-tight unit was put in at 45% dry matter (55% moisture) vs. 21% dry matter for conventional silage. Hay, on the other hand, must be dried until respiration practically stops so it will not spoil in storage. This means that loose hay should be about 75% dry matter and that tightly baled or chopped hay should have a higher percentage dry matter content.

The partly dried material stored in the gas-tight unit gives considerably less weight to handle than with grass silage. It takes much less time in the field to dry to 45% dry

by Prof. J. S. BUBAR,
Department of Agronomy

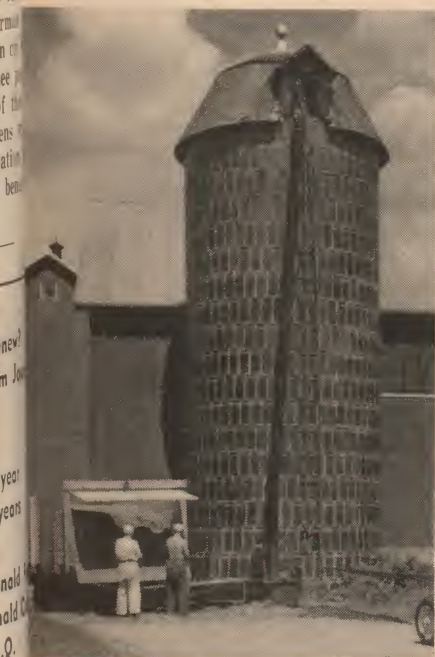


matter than to 75%, so the risk of rain on cut material is not so great as with hay. The material is too moist for serious leaf shattering to occur. It can be seen that this material falls somewhere between hay and grass silage, which accounts for its being called "haylage". Preservation takes place in the gas-tight unit before normal silage fermentation gets under way, so there is less risk of spoilage and most of the problems of undesirable odours are circumvented.

Farmers who have recognized the advantages of grass silage but have not been happy with the foul smell-



A bank of gas-tight silos at La Société des Terres Noires, Ste. Elizabeth, P.Q. Minimum spoilage, but expensive to purchase.



Upright silo at left, horizontal pit silo at right. Spoilage is greatest in horizontal silo. Construction costs less and less equipment is required to fill.



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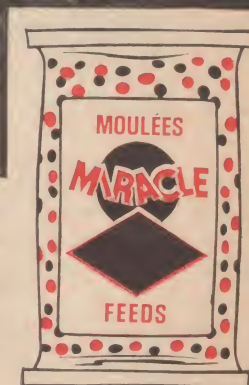
Moose

MIRACLE

QUEBEC:



If Mr. J. Boisvert looks proud, he has every right to feel so. France Rajax Friesian, shown here has a B.C.A. of 196 - 178 for 1961.



ean Paul Boisvert, Louiseville, milks 15 pure bred Holsteins with a 305 day herd average of 14,600 pounds (France Rajax contributed 23,165 lbs.). He has won first prize for his herd the last three years at Three Rivers National Fair. Mr. Boisvert is extremely well satisfied with his complete feeding programme of "Miracle" Feeds.

ing mass they obtained, may find the gas-tight process an answer to their problem. This gas-tight unit should be satisfactory for anything that can be stored in a conventional silo. Silage corn, green oats, pea vines, beet or turnip tops should be as satisfactory in these as in conventional silos. Preservatives should not be needed with the gas-tight unit since the process is stopped before the silage preservatives normally act.

The Silage Making Process

Considering that one of the cheapest ways for most farmers to get more feed to their livestock in the winter is to reduce storage losses, we should also note how losses of conventional silage can be kept low. A look at the biological process of silage preservation suggests several points at which losses may be reduced and how gas-tight silos reduce spoilage.

Gas-tight Silos Control Air Supply

In making silage, we start with green growing plants which are accumulating food as sugars and starches (carbohydrates) through the basic process by which plants

capture the sun's energy (photosynthesis). They are also using carbohydrates for growth processes through the process by which both plants and animals burn carbohydrates for energy (respiration). Food accumulation stops when forage plants are cut, but respiration goes on until conditions become such that it is no longer possible. *Respiration is stopped by drying when we make hay and by the formation of an acid medium when we make silage. In the gas-tight silo, respiration is stopped when the oxygen supply is used up, or we might say the forage is smothered.*

Conventional Silos Allow Slow Fermentation

Even the best conventional silos are not tight enough to effectively preserve by cutting off the oxygen. Respiration is slowed down but slow losses continue as microorganisms continue to function. During the first few days some acetic acid will form. This is normally overrun by lactic acid, which continues to build up for two or three weeks until the mass becomes quite acid and reaches a

preserved state. Slow fermentation continues as long as the silage is kept in storage.

Lactic acid fermentation requires carbohydrates as food for lactic acid bacteria. They act in a moist, tightly packed mass. If there is a shortage of carbohydrate or if the forage is too dry or loose, butyric acid fermentation will take over. This leads to spoiled silage. Adding extra material that is high in carbohydrate, such as molasses or ground grain, is desirable with high protein forage, since it insures that the lactic acid bacteria have the food they require.

Another trick is to short-circuit the process by putting in acid to reach the required state immediately so that lactic acid fermentation is necessary only for maintaining the preserved state. A scientist in Finland developed the technique of adding strong acids (a mixture of hydrochloric and sulphuric acids) but these are dangerous to handle and very corrosive. A similar but slower technique is to add an acid forming salt. Sodium metabisulphite is the

one used for this purpose in North America.

Spoilage is not too likely with overly wet silage, but valuable feeding material is lost in the effluence from the silo and the material may smell quite sour. Chopping aids in releasing the soluble carbohydrates in the stems so the lactic bacteria can feed properly. Chopping also improves the packing. One of the reasons that chopped corn stores so well as silage is the high carbohydrate content of this material. On the other hand, protein rich young grass needs additives because of its shortage of carbohydrates.

We can reduce the risk of a 100% loss (spoiled silage) and reduce the amount of carbohydrates lost from conventional silos down to 20-25% by using preservatives, chopping and using correct moisture content material. But because the bacteria have to be fed to make silage, it is impossible to reduce losses below this level in the normal fermentation process.

Silage stored in the gas-tight unit should not suffer such losses since preservation takes place at a stage before the bacteria act. If we assume that these units are satisfactory mechanically (it must be difficult to make repairs on the internal unloader) and that freezing does not present a problem, the decision on the value of these units relative to conventional silos of the same size can be estimated. We can allow for a 15% increase in feed coming out of the silo, a decrease in risk of spoilage and disagreeable odours and an increase in feeding value.

The fact that some of these gas-tight units have been installed in Quebec indicates that some farmers have decided they will pay. I think the principle behind them is sound. They are particularly interesting with difficult material to ensile, such as high legume forages. Perhaps they provide the answer to farmer dissatisfaction with grass silage.

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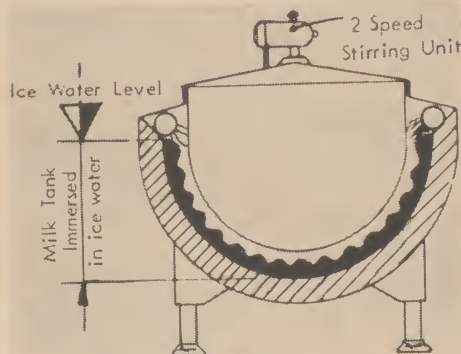
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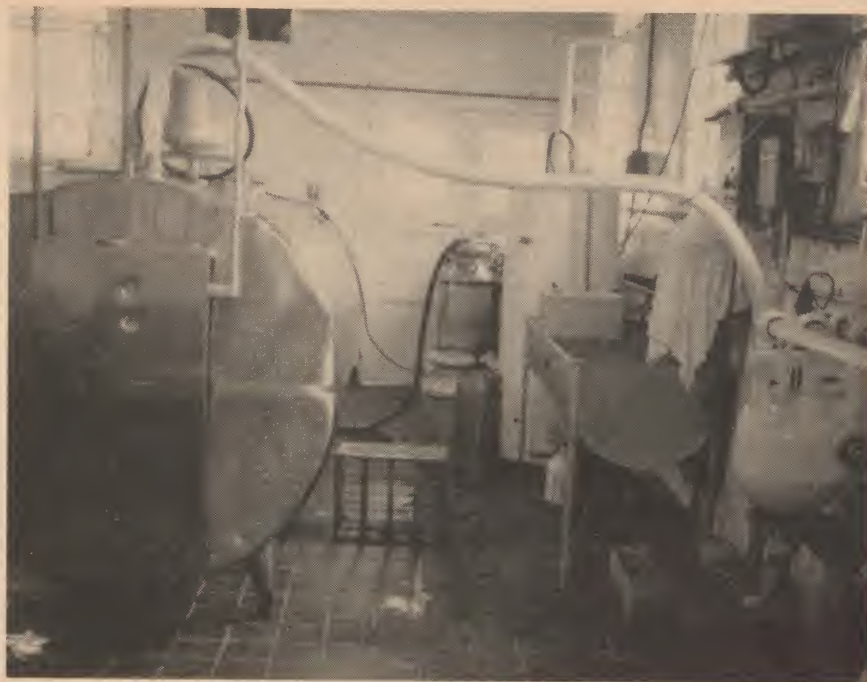
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or

M. A. Gartshore,
Ormsdown, P.Q.

Bulk Milk Coolers

by Prof. Angus BANTING,
Department of Agricultural
Engineering



College dairy showing transport of milk into tank. Picture, taken at milking time, shows milk in glass and plastic pipes. Milk is not yet shipped in bulk from the College, but is transferred from tank to cans at back of dairy for transport. Unit is a direct expansion type.

Tank trucks for the hauling of chilled milk from farm to processor and bulk tanks for the cooling of milk on the farm, are being more and more extensively used in all parts of Canada and the United States. Bulk handling has not been attempted in the Montreal area but a number of farmers are anticipating the trend and investigating bulk coolers and some are even installing them with the expectation that the change will be made in the near future. The following questions and answers may help to clear up some mistaken ideas and present some helpful information on the question.

Q. Is bulk handling of milk likely to come in the Montreal milkshed and if so, how soon?

A. The Board of Health of Montreal is working on revisions to the Montreal by-law which will permit the handling of milk in bulk and it is anticipated that a considerable amount of milk coming through the Montreal market may be handled in bulk by the end of 1963.

Q. Why has bulk handling of milk become so popular in other parts of Canada and the United States?

A. After ten to fifteen years experience in most areas it is conceded that bulk handling of milk is more efficient and sanitary and in the long run more economical than handling milk in cans and this is true both on the farm and in the plant.

Q. If there are so many advantages in favour of bulk handling why has it not come to the Montreal area earlier?

A. There are probably a number of reasons not really associated with economics or with milk quality. For one thing the quota system is a very serious deterrent to the adoption of bulk handling.

Q. Are there any serious disadvantages to the bulk handling of milk?

A. For one thing, the first cost of the equipment is higher than for can cooling. Secondly it is hard to justify bulk coolers for very small dairy herds. Thirdly, there is the problem of road conditions, especially in farm lanes and yards and more particularly during spring thaw. Add to this the fact that it is frequently necessary to build a new milk house when a bulk tank is installed and you have most of the disadvantages

covered and more reasons why bulk handling has not caught on in the Montreal area.

Q. Why should it be considered a more sanitary method of handling milk?

A. Generally it is easier to keep a bulk tank clean and free of milkstone than a large number of milk cans. In the second place, if the bulk tank is working properly the temperature of the milk is drawn down to a safe level very quickly after milking and much more quickly than it could be done in a can. Thirdly, the farmer is likely to be a little more careful of his sanitation practices. You see, if one can becomes contaminated it is a bit of a loss, but if there is contamination in a whole tank full of milk it is a very serious loss, consequently more particular care may be taken to see that sanitary conditions are observed in the bulk handling system.

Q. How is the milk handled on the stable end of the production?

A. The milk may be pumped through a pipe line directly into the tank or milk from individual cows may be carried to the milk house and poured through a strainer into the tank. Thus the cooling process is started immediately. If there is milk in the tank from a previous milking this hastens the cooling process and it creates no problem with the milk already in the tank.

Q. How is the milk handled from the tank to the tank truck?

A. The truck operator connects a special plastic hose to the outlet of your bulk tank and plugs an extension cord into an outlet in your milk room and with this arrangement pumps the milk out of the tank into the truck.

Q. How is the milk measured?

A. The tank is set up and properly levelled after which it is "calibrated". This involves checking actual quantities in the tank against a stainless steel rod, usually calibrated in inches, and the depth of milk is converted to gallons from a special conversion table. Usually samples are taken for tests, while the milk is being stirred up. Generally the hauler rinses the tank

out but washing and thorough cleaning is left to the farmer.

The most economical operation seems to require what is usually called "every other day" pick-up (E.O.D).

Q. How should one determine the size of a bulk tank he would need?

A. Generally a farmer should try to visualize the need of his herd over a ten year period and figure on the largest amount of milk in gallons likely to be produced in a single milking. For every other day pick-up the tank should have a capacity greater than four times a single milking production.

Q. How many different kinds of bulk milk tanks are there?

A. There are a large number of manufacturers, most of them in the United States, but a few in Canada. Generally they fall into two categories, one known as the Direct Expansion and the other as the Sweet Water or Ice-Bank. Either of these types can be made in the so-called "atmospheric" type or the "vacuum" type.

Q. Can you give some comparisons between these two types?

A. In the first place the direct expansion type has a larger motor and a larger compressor than the sweet water type. This throws a considerable electric load on your wiring system right at milking time when the demand for power is at its peak. In spite of this the total actual power cost of the Direct Expansion tank is somewhat lower than the Sweet Water tank. The latter type builds up a bank of ice prior to the milking which provides a reserve of cold when the warm milk is added. The motor runs for a longer time and even though it is a smaller motor total power costs are like-

ly to be somewhat higher than with the Direct Expansion system. However, experience over a considerable number of years in Ontario indicates that there is not a very great deal of difference in the overall operating costs of the two types of tank and some prefer one type and some the other. Because of this many manufacturers make both types. One thing should be mentioned here. The Direct Expansion type requires a larger motor than the Sweet Water type, and this motor must operate when the milk is being cooled. This is the period of the day when there is the greatest demand for power, and, unless the rural line is well balanced and heavy enough for the extra load, the voltages may be low, and current demand high. Because of the higher power demand it is sometimes necessary to install a heavier service line to the milk house than was required for the can cooler. On the other hand, it is possible to have the Sweet Water type operate by clock control and build up an ice bank at a time when there is very little demand for power.

Q. What about the difference between atmospheric and vacuum?

A. An atmospheric tank has no special provision for differences in pressure between inside and outside of the tank. A vacuum tank has special covers, etc., which seal the tank and make it possible to draw a vacuum on the tank itself. Hence, a pipe-line can be connected to the tank and the vacuum in the tank will draw the milk directly from the cow to the tank.

Q. What can one expect to pay for a bulk tank?

A. Cost depends on the capacity, type of tank, and the manufacturing company. One company quotes a 150 gallon tank at \$1800; a 350 gallon tank at \$2700. Availability of service should be as important a consideration.

(Continued on page 139)

Beatty Dari-Kool Bulk Milk Cooler ensures against milk freezing - - yet blend temperature never rises above 45°



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THE FAMILY FARM

PUBLISHED IN THE INTERESTS OF THE FARMERS OF THE PROVINCE

BY THE

QUEBEC DEPARTMENT OF AGRICULTURE

Compiled by T. Pickup of the Information and Research Service, Quebec Department of Agriculture.
MEDIUM TERM LOANS UNDER THE QUEBEC FARM IMPROVEMENT ACT

The Government of the Province of Quebec, realizing that ever-increasing amounts of capital are needed to develop a farming enterprise, wishes to make an effective contribution towards helping farmers to obtain the credit they need. It takes time and often much money to build up a high-grade and profitable herd of cattle or pigs or flock of sheep. Money is also needed for the judicious mechanization which can make up for the shortage of farm labour and reduce the cost of crop production. Finally, the modernization of farms has become necessary in order that farmers and their families may enjoy a standard of living comparable with that of other classes of society. For all these reasons, it is often indispensable for the farmer to have at his disposal a source of credit suited to his needs and aims.

The objects of the Quebec Farm Improvement Act may be summed up as follows:

1. To encourage the development and improvement of farms and to raise the standard of living of farmers;
2. To meet an urgent farming need and facilitate the progress of our agriculture.

The administration of this Act has been entrusted to the Quebec Farm Credit Bureau. The Bureau does not, however, itself make loans under the terms of the Farm Improvement Act but, by granting benefits under the Act (as explained below), it helps genuine and trustworthy farmers and settlers to obtain medium term loans from banks and credit unions (Caisse populaires), for the following purposes:

- A) The purchase of cattle, pigs and sheep, for breeding purposes;
- B) The purchase of farm implements and agricultural equipment or machinery;
- C) The improvement of lands and buildings.

Benefits of the Act: The Government of the Province of Quebec, through the agency of the Farm Credit Bureau, pays an amount equal to the interest at 3% on any loan not exceeding the maximum amounts specified in the Act, or on any balance of such loan, which a farmer obtains for the purposes mentioned in the Act and specified below.

The lender (bank or Caisse populaire) refers the borrower's request for payment of interest to the Quebec Farm Credit Bureau (Farm Improvement Branch). If the request is approved, the rebate of interest is paid directly to the lender, for the benefit of the borrower, every six months (in May and November of each year) after the Bureau has been satisfied that the borrower has duly made the repayments of interest and principal which he undertook when the loan was granted.

Amount of loans: Limits are set by the Government to the amounts on which the 3% rebate of interest will be paid.

In the case of loans for the purchase of breeding stock, farm implements, agricultural equipment or machinery, including farm tractors, a maximum of \$3000 is set. In the case of loans to be applied to improvements to lands and buildings, the maximum is

Photos by Ciné-Photo



Putting baled hay into the mow at the Séminaire des Montfortains, Papineauville.

\$4000. The Government also stipulates that banks and credit unions may only lend money under the terms of the Farm Improvement Act if the borrower has not sufficient available funds to pay by himself the whole cost of the purchases or improvements for which the loan is requested. In addition, the amount lent to a borrower under the Act shall not exceed the following percentage of the purchase price or cost of works:

- a) Breeding stock, 75%;
- b) Farm implements, agricultural equipment or machinery (new), 66 2/3%;
- c) Farm implements, agricultural equipment or machinery (used) 60%;
- d) Improvement of land (drainage, clearing, removal of stones, levelling, erection of fences, digging of a farm pond), 75%;
- e) Erection or improvement of buildings (including structural extensions, additions, or alterations to the outside or inside of the said buildings; the purchase, installation, repair or improvement of heating systems, including water heaters; major repairs such as the restoration of a foundation or cellar, or of an entire wall, roof or roofing, the remodelling of a kitchen, and the installation of a bathroom including drain and septic tank), 90%;
- f) Farm equipment (automatic stable cleaner, sugaring and irrigation equipment, drinking water supply system, electric wiring), 75%.

If the borrower's available funds exceed the above percentages (or equity) but are less than the total

cost, the amount of the loan shall be limited to the insufficiency.

Repayment: The capital of any loan under the Act shall be repaid in equal and consecutive instalments which may be, as agreed between the borrower and the lender, monthly, quarterly, semi-annual, or annual.

Period of loans: The term of the loan shall not exceed five years if the loan is used for the purchase of breeding stock, nor ten years if it is applied to the purchase of farm implements, agricultural equipment or machinery, or to the improvement of lands and buildings.

Guarantee of loans: Breeding stock, farm implements, agricultural equipment or machinery purchased with a loan granted under the terms of the Quebec Farm Improvement Act must be the object of a pledge of agricultural property or of security in favour of the lender under section 88 of the Bank Act.

Any loan made under the terms of the Farm Improvement Act for the improvement of lands or buildings may be acknowledged and guaranteed by the borrower by means of a deed of pledge or assignment of property, according to Article 88 of the Bank Act, or by means of hypothecation of the property. Such a loan may also be granted against an ordinary promissory note or acknowledgement of indebtedness.

Caution: In view of the credit facilities now available to farmers, the Quebec Farm Credit Bureau feels bound to warn prospective borrowers to use dis-

cretion in deciding what loans to apply for. Never borrow without having thoroughly reflected on the loan you are contemplating: otherwise, in many cases, you run the risk of worsening instead of improving your financial situation.

Above all, the Bureau advises farmers not to allow themselves to be influenced by those who may have an interest in selling articles and products of various kinds, but to take time to reflect before incurring debts or applying for loans. Every prospective borrower should ask himself the following questions before coming to a decision:

- a) Is the debt I am thinking of incurring really necessary?
- b) Will the purchase or improvement for which the borrowed money is to be used increase the productivity of my farm and my net income?
- c) With my present obligations, shall I be able to repay the loan I am contemplating, without difficulty?

If, after due consideration, a farmer or settler feels that borrowing is justifiable, he should apply to his bank or credit union and tell the manager about his project. His bank or credit union will supply him with copies of the official form (MT-1) which he must use in applying for a loan and, at the same time, for the rebate of interest which will be made in his favour by the Government. Information about the Quebec Farm Improvement Act and its Regulations and provisions may be obtained from "The Quebec Farm Credit Bureau, Farm Improvement Branch, Parliament, Quebec, P.Q."

BETTER HAY

If every farmer would bear in mind the unduly large quantities of commercial feedstuffs he has to buy — in the form of proteins, vitamins, or minerals of all kinds — he would pay much closer attention to his haymaking, writes Mr. J. R. Cloutier of the Quebec Department of Agriculture.

In order to make better hay, the farmer must of course rely to a great extent on favourable weather, neither too wet nor too dry. But though this is unquestionably a most important factor, it is a mistake to think, as some people are too often inclined to do, that the quality of hay is entirely dependent on weather. Other factors of equal importance play their part, for example:

1. The stage of maturity of the plants at cutting time. In the case of legumes, this should be when about 15 to 20% of the flowers are in bloom; for grasses such as timothy, brome grass, and fescue, the beginning of the flowering period; and for hayfields largely covered with couch grass, when the spikelets have formed;
2. The percentage of moisture in the plants: this varies considerably according to whether conditions are dry or very wet;
3. The amount of hay which can be got in safely within a day or two, with the available equipment;



Hay is picked up, baled, and loaded in a single operation on the farm of Mr. Léopold Sénécal at Boucherville, Chambly.

4. Making sure, if the hay is going to be baled in the field, that its moisture content is about the same as if it were going to be got in loose. The practice of baling hay which is too moist and, sometimes, baling it too tightly, may lead to much loss both in the quality of the fodder and in the resulting decline

in yield of the animals. Spoiled hay has an immediate effect on the health and well-being of the herd from every point of view;

5. New machines known as "hay conditioners" (stem crushers and crimpers) in certain cases allow the period of drying in the field to be considerably shortened, so that the full value of the hay is kept. However, these machines sometimes need to be used with a good deal of skill and judgment;
6. The method of artificial drying.

This page supplied in the interests of the Family Farm by the Quebec Department of Agriculture.

(Continued on page 133)



Mr. O. Gatién of St-Dominique, Bagot, feeding meal to his cows.

This page supplied in the interests of the Family Farm by the Quebec Department of Agriculture.

for cattle. It supplies one third of all the nutrients consumed by the dairy cow during the year, while its cost amounts to only one seventh of the total. In spite of the key role which pastures play in the profitable management of a dairy herd, there are still the many farmers who do too little to increase the productivity of their grasslands. In this connection, Mr. Bruno Gelinas of the Quebec Department of Agriculture reminds us of the story about the farmer who was not satisfied with the milk production of a very good cow which his neighbour had sold him. "But what can you expect?", said the neighbour, "I sold you my cow, but I didn't sell you my pasture".

BETTER HAY

(From page 132)

which gives very good results by ensuring hay of first-class quality. On the other hand, the rather high cost of using this system may put it beyond the reach of farmers with a limited acreage.

No matter what method is used, the principles underlying better haymaking remain the same. Haymaking time on the farm is that period of the harvest which the farmer can scarcely make up for if it is missed.

THOSE THIEVING WEEDS

It is high time that a stop was put to the "shop-lifting" which goes on in the country-side every year, especially during the summer. If we are to do this successfully, we must find the culprits. The first on whom well-founded suspicion will fall must surely be those robbers — the weeds.

By their misdeeds, direct and indirect, these pests deprive our farmers of considerable income. Mr. Paul Paquin of the Quebec Department of Agriculture puts the average value of losses due to weeds at over three hundred dollars per farm every year in the Province of Quebec.

In the first place, weeds take up land which should be occupied by useful plants, such as grains, grasses, and legumes. They cover the surface of the soil and prevent or delay

(Continued on page 134)

SUPPLEMENTED PASTURE FOR MILK PRODUCTION

A milking cow must have several essential constituents in her food; firstly in order to satisfy her maintenance requirements and secondly to produce the maximum milk yield of which she is capable. Feedstuffs in general do contain these elements, but in different proportions. Those which are balanced in themselves are few in number and, for this reason, a "balanced ration" should always include a number of different ingredients which are mutually complementary, that is to say, supply one another's deficiencies.

Feeding is not just a matter of filling a cow's stomach, for her food must contain all the materials which she needs to make milk. A good milker soon becomes an indifferent one if she is not properly fed. The food value of any feedstuff depends in the first place on its *digestible* content of essential food substances, i.e., of proteins, carbohydrates and fats and minerals, etc.; moreover the relative proportions of these ingredients must be suited to the purpose for which the feed is being used, e.g., for milk or meat production or to provide energy for work, and so forth.

Cattle seem to find young, spring grass very appetizing: it apparently tastes well and it is readily digested. However, this does not necessarily mean that by itself it is an ideal ration for a milking cow, for although these young, rapidly growing leaves are rich in protein (up to 20%), they are not so well

provided with other nutrients. The dairyman may therefore resort to the feeding of home-grown grains, such as oats and barley, in order to make up for the shortage of carbohydrates in the grass. He must also make a mineral mixture available to the animals in order to supply the deficiencies in their rations.

Under certain conditions, the practice is followed of giving cows a feed of the previous season's hay before putting them out to graze. This is in keeping with the principles of sound feeding, and is therefore relished by the animals. At the same time, it often prevents the bloat to which cows are susceptible when they are on fresh, growing pasture. This also applies to cows which are grazing on the aftermath of hayfields.

The composition of grass during the later stages of its growth is very different from that of young, rapidly growing grass. Mature grass may contain as little as 7% of protein and, on the other hand, the amount of dry matter it contains is much increased. This is likely to be its condition in July and during periods of scanty rainfall. At such times, unfertilized pasture may even fail to provide enough nourishment for the bodily subsistence of the cattle, in which case it would be a good thing to add concentrates richer in nitrogenous matter in order to balance their rations.

Good pasture, adequately supplemented, provides the cheapest feed

HOW TO CONTROL THE SWARMING OF BEES

It is necessary for beekeepers to control the swarming of bees so that there will be a bigger crop of honey. When bees swarm, they divide their forces at the height of the honey flow in order to start rearing brood in one or more colonies. By doing so, they multiply the number of young mouths to be fed and, as a result, the number of nurse bees needed, at the very time when workers are particularly required to gather nectar. If he does not control swarming, the beekeeper may have to watch his colonies nearly all the time while waiting for them to swarm, on top of which he will also have the trouble of chasing the swarm. On the other hand, if he does control swarming, he need only attend to them long enough to perform certain operations, and that at a time of his own choosing.

In order to prevent premature swarming, a super should be placed, without a queen excluder, on top of every strong colony as soon as that colony contains seven or eight frames of brood (about the beginning of the dandelion honey flow). Swarm control proper is applied just before the main honey flow.

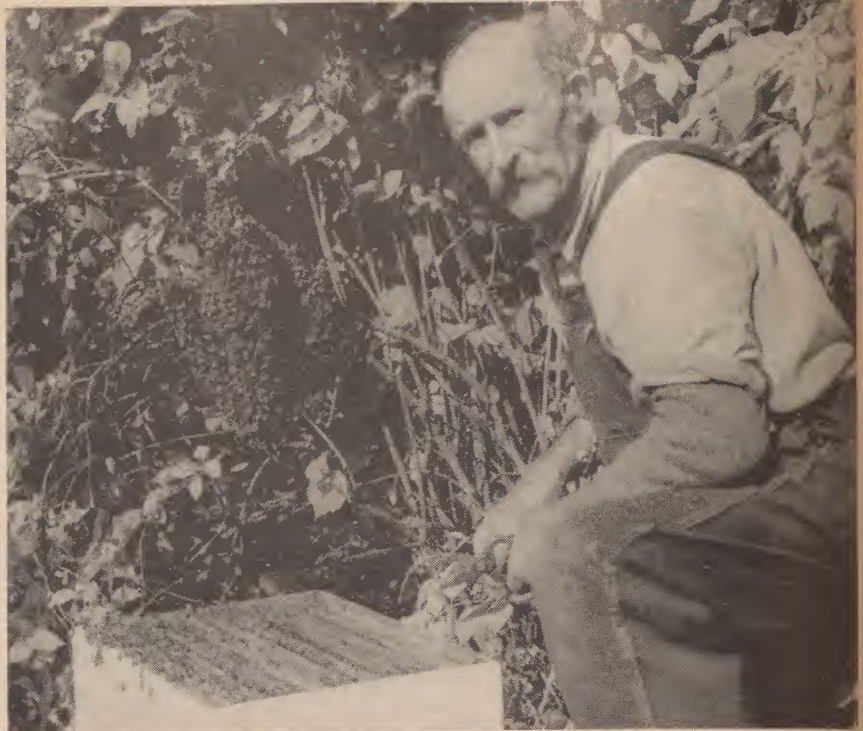
There are different ways of controlling swarming, but the underlying principle is to prevent the brood chamber from becoming congested with brood and honey, by leaving the queen all the cells she needs for her laying. Another good way, writes Mr. René Brasseur of the Apiculture division of the Quebec Department of Agriculture, is to replace the queen at the start of the main honey flow, preferably with a queen of a very good line reared by the beekeeper himself.

THE HARVESTING OF HEAD LETTUCE

Mr. F. Trudel of the Horticulture Service gives the following hints on the harvesting and crating of head lettuce. Cutting should not be started until the heads are mature and firm.

Heads of lettuce which are harvested too soon, that is to say when they are not yet firm, quickly wilt. Growers who harvest lettuce which is not ready, spoil the market because they have to sell at a reduced price and this tends to lower the price even for lettuce of good quality.

When head lettuce is ready for cutting, the top of the head usually has a slightly more silvery colour than in lettuce which is not quite ready.



Mr. Biron of St-Elphège, Yamaska, hiving a swarm of bees. Swarming is an interesting and impressive sight, but may prove troublesome to the beekeeper. It can be prevented or controlled.

Generally speaking, our growers cut the lettuce and then crate it in the field. This method reduces harvesting costs to a minimum but, on the other hand, it makes grading difficult, and marketing in uniform lots almost impossible. Another disadvantage is that lettuce crated in the field is liable to heat rapidly, especially if it has been cut fairly late on a hot, sunny day.

Lettuce should be cut early in the morning, when the inside of the head is cool and the leaves are crisp. As a result, the lettuce will look more attractive and will keep better. However, it should be remembered that at that time of the day, there may be dew and the necessary care will have to be taken not to soil the crates and, above all, not to dirty the lettuce.

As a rule, our growers do not pay enough attention to the preparation of lettuce for market. They should remove the outside leaves so as to give the heads a good appearance. Too many wrapper leaves give the impression that the heads are soft and immature, and they also render the lettuce more difficult to pack. Too many broken leaves result in what looks like a crate of squashed lettuce, instead of a crate of fine, crisp heads.

This page supplied in the interests of the Family Farm by the Quebec Department of Agriculture.

THOSE THIEVING WEEDS

(From page 133)

the germination of good seed.

They rob the soil of some of the moisture and nutrients needed by the crop plants, and they also deprive the crop of part of its market value, and greatly detract from its appearance.

Weeds involve the farmer in the extra trouble and expense of carrying out suitable cultural practices for their control, and they likewise make haying and harvesting more difficult.

The presence of weed seeds in seed grain entails more careful (and therefore more expensive) cleaning and, of course, reduces the amount of grain available for sowing.

Weeds harbour overwintering pests in their stems or in their seeds. These pass the winter in a dormant state and are ready and waiting in spring to start infesting the coming season's crops.

Nor should we forget the harmful and even deadly effects of certain poisonous weeds on cattle.

Furthermore, these intruding weeds do nothing to increase the value of a farm, gay and colourful though they may be.

So, let's all take a hand in ridding our fields of the pests, and let us also take more advantage of our municipal weed inspectors, so that vacant lots may cease to be nurseries for the propagation of weed seeds.

FIRE-BLIGHT OF APPLE TREES

Fire-blight is a disease which attacks apple orchards with varying degrees of severity. Unlike scab, it is not generalized and wide-spread, and it is nearly always the same orchards which are found to be affected. Moreover, fire-blight varies a great deal in the amount of damage it does, which in some years may be negligible or even nonexistent.

The disease develops in the earlier part of the summer season, under the influence of comparatively warm and wet weather. Its behaviour is very different from that of scab. Fire-blight is caused by a bacterium which invades the vessels of the tree and thence the neighbouring tissues. It is spread by insects and also by the spattering and trickling of rain, from cankers on the trunk and branches from which oozes the inoculum, a sticky, brownish liquid.

Fire-blight may affect all parts of the tree, from the ground up. The most conspicuous damage is seen on the blossom clusters, of which the leaves and flowers wither and the base is encircled by a little canker. Injury is also very noticeable on the current season's growth and on suckers and water-sprouts, which become cankered and bend and curve at the tip, so that they often look like walking stick handles bearing a cluster of whitered, leathery leaves.

In the case of apple trees which have carried the disease for some years, extensive cankers may be found on the trunks and branches. Such cankers are reddish-brown in colour and have well-defined outlines. The affected parts are sunken or depressed and a sticky, contaminating fluid or gum escapes from them through cracks in the bark.

An effective means of combating fire-blight of apple trees has been known for only a few years. At present an antibiotic product known as Agristrep is used. Three treatments are recommended: at the beginning of blossoming, at full bloom, and at the end of blossoming. Eighteen to thirty-six ounces of Agristrep should be used per acre, or 50 to 100 parts per million — according to the manufacturer's directions. In the case of commercial orchards, the cutting out, removal, and treatment of cankers, and the pruning away of affected water-sprouts and suckers are methods of control which are now recommended only more or less strongly, in view of the cost of labour and the persistence required

This page supplied in the interests of the Family Farm by the Quebec Department of Agriculture.

in their use, year after year, for only comparative success. Moreover, the pruning away of water-sprouts, suckers, and the current season's shoots is not entirely practicable and, in many cases, the disease is carried about during the operation on tools and hands.

PLANT DISEASES AFFECT CROP YIELDS

Mr. David Leblond of the Division of Plant Pathology in the Quebec Department of Agriculture gives the following advice:

It is a fact, which is now readily admitted by farmers and all those who are closely connected with agriculture, that diseases of plants cause considerable damage to crops. The losses so caused and largely due to reduction in yield, may be reckoned on the average at several million dollars a year in this Province.

No crop, in fact, is completely immune to disease. The grain field, the orchard, the vegetable garden and the flower-bed are all liable to suffer more or less serious troubles in one and the same year, if no precautions are taken. The person who is most likely to be made aware of the presence of plant diseases is the farmer himself, when, for example, he notices a conspicuous amount of smut in his oats, scab on his apples, late blight in his potatoes, and even wilting and decay amongst the flowers in his garden. In the long run, these diseases mean so many bushels of grain less at harvest time,

so many apples which will not qualify for the higher grades, potatoes rotting in the cellar, and beauty missing in the garden.

These are merely a few simple examples which could very easily be multiplied. The field of plant pathology is actually much more vast. According to estimates, oats alone may be attacked by about 38 diseases, clover by 42, potatoes 93, apple trees 79, strawberry plants 33, roses 30. Fortunately, however, these diseases are not all prevalent at the same time.

Moreover, a great many diseases can be prevented. In the first place, farming practices such as rotation, drainage, fertilization of the soil, the use of resistant varieties, etc., contribute to the health of plants. Secondly, more direct methods, such as the disinfection of seeds and treatment of crops in the field with chemicals known as fungicides, have become indispensable in many cases.

Information about the control of plant diseases will be found in the different Protection Guides published by the Provincial Department of Agriculture and issued free, on request.

POISON IVY

Poison Ivy—Where it grows? How to identify it? How poisoning occurs? What precautions to take? How to treat the rash? Answers to all these questions as well as directions for eradication are contained in a booklet just issued by the Canada Department of Agriculture. Available from the Information Division, Canada Department of Agriculture, Ottawa. Publication No. 820, Poison Ivy.



The dairy herd grazing on the farm of Mr. H. Dupont at St-Etienne des Grés, St-Maurice.

The Country Lane

STRIFE

*I seek the consciousness of self
And strike at all restraints
That strive to mould me
To the common shape!*

*Must sons repeat
Their fathers' dull mistakes,
Walking in chain-gang style,
Father preceding the son
And son's son following,
To leave one single set
Of footprints on Time's sand?*

*No!
I'll break the lockstep!
Sunder the shackles of conformity!
Step aside!
See!
That virgin footprint is mine own!
Symbol of freedom!
Deep — from the burden I bear!
Who follows not
Must lead new followers —
So — whither go I?
Infinity points directions.
I must choose.*

*Other processions pass me by —
Heads down — plodding — rhythmic;
Blind followers, lacking identity —
Only pretending to live —
Automatons caught in a groove,
Capable only of mimicry!
Hands laid passively on shoulders
Of those who follow before;
Blurred eyes — dulled minds —
Intent upon repetition,
Apeing the half-remembered movements
Of primitive leaders, long gone.*

*What?
Must I lead?
Submit to the drag of the blind ones
Gripping my shoulders?
Shall we not scatter,
Each seeking his way,
Guided by his own sight,
Impelled by his own wondering?*

*Face to the wind's whip!
Sand lashes the eyeballs,
Blinding.
Turn —
The sands are vast and wind-swept.
Footprints vanish
In a little time!
I search the shifting of the sands!
I sift the sands with fingers deft!
I delve beneath!*

What do I seek?



*I seek for that
Which makes no mark
On worlds in space or time.
I seek beyond the planet's place,
Beyond the yearnings of my race,
My dreams of the sublime;
Past light and dark,
And rough and flat.*

What do I seek?

*I seek the soul's reality!
I reach for goals beyond my reach.*

— G. P. HAWKE
Farnham, P.Q.

COINCIDENCE CALAMITOUS

*That night at the party—woe and distress—
I met someone wearing the same dress;
What matter, thought I, style need be no fetter—
Till sadly I noted SHE wore it much better!*

— Olive Sanborn RUBENS
Montreal, P.Q.

COUNTRY DRIVE

*Cows polka dot green meadows where
They lunch upon the grass;
Sheep look like snowy puffballs on
The stony hills we pass.
Ducks float like water lilies on
Small silver ponds, and I
Would like to stop and pet them all
Instead of riding by.*

— Margaret SCHUMACHER

MAKING JOY A HABIT

*There was a dachshund once, so long
He hadn't any notion
How long it took to notify
His tail of his emotion;
And so it happened, while his eyes
Were filled with tears and sadness,
His little tail went wagging on
Because of previous gladness.*

— Author Unknown

"At 15 my mind was bent on learning. At 30 I stood firm. At 40 I was free from delusions. At 60 my ears were attentive to truth. At 70 I could follow the promptings of my heart without violating the laws of morality."

— Confucius

Photographic Anecdotes



William Getty, whose twinkling eyes were caught in this photo, was more renowned for his prowess and expertise at barn raising events than at haying. In the days of the barn raising bees neighbours came for miles, the menfolk to erect the frame and the womenfolk to feed the men. Mr. Getty, who had no fear of high structures, would dance along the plate rimbers and celebrate the completion of the framework by standing on his head on the ridgeplate.

This month the Journal historical item is replaced by the pictures on this page. They convey as much information about these of our forefathers as any anecdote, no matter how colourful and well written, could do. To our senior generation they will probably bring back many pleasant memories. Perhaps they will remind our junior citizens that once upon a time half the citizens of Canada lived outside the major towns and villages and enjoyed it too!

All pictures are by Norman Edson, taken when he was a struggling young painter at the Glen in Brome County in the late 1800's. Apparently his painting and photography failed to provide him with an adequate income in the Glen for we find him now in Seattle, Washington.

He has completed a series of Indian paintings for the World's Fair at Seattle. One of his most famous works is Mt. Rainier. Mr. Edson, now 83, is still painting.



The broad, toothless smile of Osmond Titus, a pioneer of Glen Sutton, is captured above. His clothing in this picture was all made by his good wife.

Photos of the vintage and quality of these are sought for their qualities as historical records. The Journal would appreciate receiving any which might be shared with readers. Also, historical societies sometimes appreciate them as photographic records of pioneer life, clothing, tools, and handicrafts. At the

present time the Quebec Women's Institutes are involved in a project outlining the development of various handicrafts and the provincial office would like to see any pictures dealing with this subject. Forward them to Box 237, Macdonald College, with return address clearly indicated.



Lumber camps such as this at Glen Sutton were not uncommon a few generations ago. Cookie poses in the door.

Four Wardens For Fabrics



by Prof. M. JENKINS,
School of Household Science

In the days of our grandmothers and greatgrandmothers, laundering meant labour. Hot water, strong soaps, the frost of the winter and the summer's sun all helped, but elbow grease was the first essential.

Primitive washing machines were back-breaking. One model had a tub on which two rollers were clamped. A hand crank wrung every garment back and forth through the suds between them. A wooden see-saw was mounted on another. The clothes were hung from the ends and the laundress with her sudsy arms teetered them up and down against wash boards fixed to the opposite sides of the tub. The happiest design provided, on top of the machine, a rocking chair in which a small boy swung to provide the motive power.

The modern washing machine is automatic. The only labour involved is button-pushing. But the action is gentle. Fabrics are swished and tumbled lightly through the wash water. For the old, energetic wringing and scouring, good and informed laundry methods must be substituted and good laundry methods begin in careful preparation.

Sort Out The Problem Fabrics

Problem fabrics should be sorted out and set aside for special care. The tragedy of the lost red sock that slipped unnoticed into the washing machine and firmly dyed every sheet, shirt and handkerchief to a rosy pink is well-known. Less well-known is the tinting liability of many acetate rayons and synthetics which are apparently colour-fast. Ordinary dyestuffs are not absorbed by these so the manufacturers often use "migratory" dyes, so-called because in warm soapy water, they wander from one fab-

ric and into another of the same type. The water remains clear, but any other acetate or synthetic garment may come out in all the colours of the rainbow. The wise woman washes each colour separately.

Keep Resin Finishes Out of Chlorine Bleaches

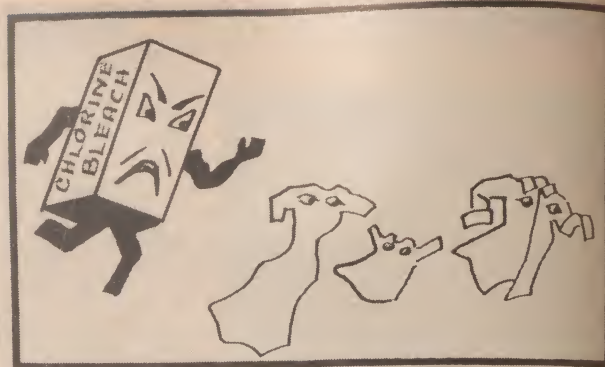
Another tragedy may occur if a crisp white crease-resistant or wash-and-wear cotton gets into a chlorine bleach. Such fabrics owe their good qualities to resin finishes, most of which are chlorine-retentive. The resin combines with the chlorine and mere rinsing will not remove it.

The first symptom of trouble is a disagreeable yellowing of the material. Worse, the chlorine gradually forms hydrochloric acid which destroys the cotton rapidly when the heat of an iron is applied. Fortunately there is a cure. Colour-removers, sold by the makers of household dyes, restore the fabric to its original white and also change the chlorine present to a harmless compound. Instructions for use are on the package.

Prevention lies in reading the fine print on the bleach package. Beware of one that mentions "available chlorine" or "Active ingredient: dichloro dimethyl hydantoin". The latter is a new chemical which acts slowly to prevent over-bleaching and the consequent weakening of ordinary cotton, but the chlorine is there and it should not be used on resin-finished fabrics.

Strike The First Blow at Soil

Collars and cuffs of terylene, dacron, nylon and orlon require special care. Perspiration and oils from the body rub off on the fabric. Hot sudsy water softens the oils which then sink into the fibre and stay there permanently. Cool sudsy water does not have the washing



The Enemy of the Resin-Finish Family

Beware of using chlorine bleach on clothing of the resin-finish family. Yellowing is the first sign of the chlorine attack followed by rapid destruction of cotton when the heat of the iron is applied.

strength to remove the oil. A thick creamy lather of a synthetic detergent moistened with a little cool water should be brushed into the soiled area with a soft brush until the dark marks are gone. Then the garment can be laundered as usual.

The time-honoured method of soaking heavily soiled articles in soapy water is one of the causes of the obnoxious tattle-tale gray. Cottons and linens, viscose and Bernberg rayons absorb moisture to an astonishing degree. Soapy water works to remove the particles of dirt from the surface of the fabrics but it also seeps into the fibres carrying the dirt with it, and once imbedded this soil is impossible to remove. A good rule to follow is to soak not more than ten minutes then rinse thoroughly before machine washing.

A more effective and certainly more labour-saving method is pre-washing with the machine set at "Rinse". The cool water of this cycle dislodges stains which might set in hot water while the agitation of the machine loosens the grime and keeps it bobbing about in the water until it is flushed away.

Protect The Soap

Soap, that boon to cleanliness, must be protected if its work is to be effective. The soap molecule looks like a tadpole, long skinny body and small round head. The head carries one atom of sodium, the active cleanser. Now hard water contains such metals as calcium and magnesium which have the power to oust the sodium and take its place.

Calcium and magnesium soaps are sticky greasy substances, familiar in the bath-tub ring. They make good adhesive plasters, axle grease and lubricating oils, but they are scoundrels in the laundry. They coat fabrics with a greasy film that cannot be washed off nor can the

dust and soot which adhere to it. Colours are dulled and whites grow dingy and gray. Textures roughen and harden. Woollens, after a period of time, develop an unpleasant odour. Bath towels lose their soft absorbency, and the wear life of every fabric is shortened.

Fortunately, sodium hexametaphosphate, a chemical mild and harmless to fabrics, is available among the water softeners in any grocery store. This chemical clutches, as it were, the metallic salts in hard water and holds them strangled in its molecular arms, helpless to perpetrate their mischief. A small amount, added before the

soap, renders water silky soft and pleasant to the hands. Fabrics spoiled by metallic soaps can be re-conditioned by washing as usual but with sodium hexametaphosphate only, no soap, no synthetic detergent. Bath towels and face towels profit most, regaining a luxurious fluffiness.

Here the laundering routine begins. The investment of the few moments spent in preparation will return dividends in economy of time and effort, in immaculate fabrics with clear fresh colour, and in strong fabrics unharmed by the action of chemicals and harsh friction.

The Old Soak — Redeposited Soil



Soak heavily soiled articles not more than ten minutes, then rinse thoroughly before machine washing.

DRINK FOR ROSES

When you have a cup of tea in the afternoon, spare a thought for your hybrid tea roses. They may be dry too, and could certainly benefit from a summer mulch.

This was shown at the Canada Department of Agriculture experimental farm, Morden, Man., in 1960 according to H. F. Harp.

Mr. Harp states that winter mortality of hybrid teas is largely due to drought, to spider mites, and early defoliation of plants by black spot disease. A summer mulch conserves moisture, insulates against heat and lessens the spread of black spot disease.

Granulated peat moss, though expensive, is a practical mulch for a few bushes and can be dug into the soil in the fall. Lawn clippings, crushed corn cobs and sunflower husks are satisfactory.

The roses are mulched early in July, immediately after an application of 27-14-0 fertilizer at four ounces per square yard, or its equivalent which will give one ounce of nitrogen and a half ounce of phosphorous. They should be watered to the equivalent of an inch of rain if necessary.

The mulch is spread evenly over the rose beds to an average depth of three inches so that no soil is showing. This is important as rain splashing on the bare soil can spread the spores of black spot disease. Removing the mulch in mid-September is recommended in order to hasten cane ripening. If the autumn weather is dry, the mulch may remain and later be used as a basis for winter protection of the plants.

BULK MILK COOLERS . . . (from page 130)

deration for farmers as cost — perhaps it is even more important than cost. Unless there is assurance of adequate servicing, farmers should be very wary of purchasing that particular make of tank.

Q. What are the regulations governing the design and installation of bulk tanks in Quebec?

A. At the present time there are no such regulations. However, if a tank measures up to the 3A standard in the United States or is the standard accepted in Ontario, it is likely to be a satisfactory tank. For use in Canada any tank must have the C.S.A. (Canadian Standards Association) approval seal. This is not an approval of the bulk tank itself, but an approval of the electrical units and the way the electrical motors are controlled. The C.S.A. approval is only a guarantee that the equipment is safe from electrical hazards so far as life, limb and property are concerned.

Q. It is rumoured that some sub-standard U.S. tanks are being sold to farmers within easy reach of the border and at very low prices. What is your reaction to this?

A. We doubt this very much. One such rumour did

reach us concerning a bulk tank in Brome County but when traced out it was discovered that the tank was a Canadian made tank of recognized quality.

We fail to see how a salesman could get away with selling sub-standard tanks because most farmers who are seriously interested in securing a quality product would look very carefully into the background of one of these so-called bargains before making an investment of the magnitude of a bulk tank.

Q. If I want more information on this subject, where can I get it?

A. Since there is no printed information available in Quebec on this subject the best procedure would likely be to consult as many bulk tank manufacturers as possible and get the literature that they have for distribution. Most of these manufacturers operating on a country wide scale cannot afford to be less than completely honest in the literature they distribute.

Another source of information which might be helpful is a U.S.D.A. Farmers Bulletin #2175. This is available from the Superintendent of Documents, Washington 25, D.C. for 10 cents (American coin). The name of the bulletin is "Cooling Milk on the Farm".



The Better Impulse

NEWS AND VIEWS OF THE
WOMEN'S INSTITUTES OF QUEBEC



FACTS! FINGERS! FUN!

That 'a good time was had by all' seemed to be obvious from the comments heard around the corridors of Macdonald College during the Leadership Course. More important, one heard, 'I certainly learned a lot from that course, and it was so interesting'. We hope they will pass on the information — and the enthusiasm — to the members of their branches who weren't here.

The Art class with Ruth Runnells was small but one day they wouldn't even stop painting to take the tours. In Household Management, under Miss Helen Devereaux, the delegates found practical answers for many questions regarding the choice and care of equipment, etc. The French class was small but very worthwhile under the popular Mrs. Poirier. In Horticulture with Mr. J. Roht they learned about house plants, window boxes and how to plan their grounds. Embroidery and Needlepoint with Mrs. Wells and Mrs. Beattie were very popular and they have all gone home to start samplers for the Tweedsmuir Contest — we hope.

Everyone enjoyed the tours showing the renovations in many College departments — the main library and the Travelling Library, the Household Science and Handicrafts Departments, the new office and Laird Hall. The 'bugs and butterflies' in the Lyman Museum fascinated many. One delegate who really saw changes was Mrs. R. Younie who graduated in Home Economics in 1912.

In the evenings after film showings Mrs. Ossington, 1st Vice President, led discussions in Institute work and Ste. Anne's WI supplied the necessary finish of snacks — particularly necessary after the XBX exercises Wednesday night. This display resulted in a chorus of requests for the XBX booklet. We expect by next short course there will be 2300 physically fit QWI members.

Thursday evening was the delegates own party of fun and games, where talents were unearthed — singing, acting, tap dancing and a dance by our Indian visitors. After the evaluation Friday morning the forty-two delegates left for their homes in counties from Gaspé to Temiskaming.

History of Temiskaming Indians

ORIGIN:

Algonquins are the Indians pertaining to the most extensive of the linguistic families of North American Indians including the Blackfoot, Ojibway and Cree. They were the Indians that Champlain helped against the Iroquois in 1609. Before the coming of the white man, they occupied or frequented the territory along the north and mouth of the Ottawa River.

MIGRATION:

The Indians of Temiskaming migrated from Moose Factory where the Hudson Bay Company is located. As the years rolled along they gradually came to settle on the shore of Lake Temiskaming, which they called the Head of the Lake. The first families to settle were McBrides, Polsons and Kings.

CIVILIZATION:

The Indians fished and hunted for their living. They trapped and traded fur with the Hudson Bay Company. Each family was self-sustaining.

MISSIONARIES:

Father Laverlochere, O.M.I., was our first Missionary.

The Algonquins belong to the Catholic faith. In the early days before they settled here, the Indians gathered at the Old Mission every year during the summer months after a long and tedious voyage by canoe from their trapping grounds farther north. This trip would take from six to eight weeks, camping and portaging until they reached their mission. They would stay here until Fall when they would all depart with supplies for the winter.

EDUCATION:

As to education, there is a Public School under the direction of the Grey Nuns of the Cross which houses 50 or more pupils providing classes up to the eighth grade. This coming year, all but the first three grades will attend school in the village. Two girls from the reserve completed their education at Pembroke. One obtained a posi-

tion as a secretary and the other as a teacher. We have many ambitious young people who have great perseverance. Two girls have graduated from High School at St. Joseph's Convent in Chateaufort.

(Continued on page 142)

FROM THE OFFICE

Please notice the cover. It was loaned by Mrs. Geo. Patten, Sutton and the photographer was Norman Edson, now 83 and a well known artist in Washington, D.C. Pictures such as this would be good for use in the Mosaic.

Treasurers — Cheques or money orders for stationery etc. sent to the office should be made out to N. E. Holmes, NOT to Quebec Women's Institutes.

New Members — Be sure you have a Handbook and a copy of Do's and Don'ts.

Mrs. Beattie, Prov. Treasurer, reports \$209.02 received for the extra collections for Pennies. The ACWW office in London will be very pleased.

Gift Coupon #400 is now closed. \$7,150 was the total for the Canadian Institutes. FWIC still hopes contacts will be continued between the Islands and the Institute members. For more information address: Mrs. J. O. Decker, Box #66, Pemberton, B.C.

FWIC book of Tweedsmuir Songs will in the future cost \$1.00. FWIC sterling silver coffee spoons \$4.00 each.

DELEGATES TO CONVENTION (not Board) — Please read all about Farm Day on the back page and do try to come Tuesday morning instead of Wednesday. But if you do, PLEASE let me know so that I can let the dining room and rooms staffs know you will be here for Tuesday night supper and overnight.

The Month With The W.I.

19 Counties reported this month, (and good reports they are too.) Spring meetings are noted for their sales of slips and bulbs, and this year is no exception. Donations were to the Girl Guides, the Red Cross, and the Salvation Army. Cotton for Cancer is mentioned frequently, and a lot of work completed for the U.S.C. New conveners have been elected in many cases, and I urge retiring conveners to give all the help they can to their successors, so that we can get off to a good start.

ARGENTEUIL:

Arundel reported two new members. **Brownsburg** welcomed three new members, and enjoyed a talk by Mrs. Perley Clark on "What an egg means to me" which gave information on the grading and candling of eggs. A Coffee Party and bake sale were held. **Dalesville** entertained the teaching staff of the High School to supper. Two plays were presented. **Frontier** held a "Grandmothers' Evening" when the hostess, Mrs. A. Graham, presented a booklet — "The Easter Story" to each grandmother. Films on England and Scotland were shown. The County President was a guest at this meeting. **Jerusalem-Bethany:** the Agriculture convener read two humorous articles — "The truth about the Cow" and "A Man and His Mule". Coleus plants were distributed to the members. **Lachute** heard a talk by Mrs. George Leggett on the planting, growing and care of gladiolus. **Pioneer** was visited by the County president. Pictures of local wild-life were shown by Mr. W. Wilson. **Upper Lachute East End** had an original hat contest.

BONAVENTURE:

Black Cape heard a paper on the Maple Syrup and Sugar industry. **Grand Cascapedia** made a substantial donation to a local school for new stage curtains and library books. **Marcil** has obtained a coffee maker from Canada Packers and cook-books have been sold. **Matapedia** held their annual President's Dinner. This branch will provide a cup and six miniature cups for bowling competition.

BROME:

Abercorn have completed their quilt top for competition. Silence was observed for Mrs. J. Foley, the

last Charter member of this branch, who passed away in April, aged 91. Welcome to another Charter member, Mrs. W. Tibbitts, who has re-joined the W.I. after several years absence. **Austin** read their branch history and revised it. A letter and a pictorial linen towel were received from the English Link of this branch. **Knowlton's Landing** will present a Bursary to the most deserving pupil in Grade 9 at Mansonville School. **South Bolton** have completed the re-decorating and painting of their hall, with all members assisting.

CHATEAUGUAY-HUNTINGDON:

Aubrey-Riverfield are helping with a Bicycle Safety Test. A talk on Bermuda was given by a member, Mrs. H. C. Stairs. **Dewittville** have been busy raising funds for a skating and hockey rink. A nearly new sale, a spring dance and a drawing on a chest of silver were held. Mrs. Charles Reid of Huntingdon W.I. spoke on the most effective use of freezers, and demonstrated the proper method of wrapping food. **Hemmingford** enjoyed two films — "Singing Pipes" and "Home Landscaping." **Howick** discussed the care of gladiolus and "What is a good breakfast". Members assisted at first Chat.-Hunt. Music Festival. **Ormstown** have 4 new members. A report was also received from **Franklin Centre**.

COMPTON:

Brockbury held an apron parade, and a card party to raise funds. **Canterbury** learned about the new dial telephones in an interesting talk given by Mrs. Lloyd Pehleman. **Cookshire** heard three prize winning essays on "Canada's Centenary" written by High School pupils. Miss K. Learned spoke on Dr. Wilder Penfield's suggestion that parents urge their children to learn more than one language, and Mrs. Hodge read about agricultural courses for boys at Ste Foy, and on increased consumption of milk as a project. Pictures were shown on bauxite, from the raw material through all the processes until it becomes aluminum bars or sheets. **East Angus** had a discussion on laws governing meat inspection, and a most interesting talk on the Quebec Mosaic, given by Mrs. A. Coates. **East Clifton** are sending out letters regarding rabies and stray dogs and **Sawyerville** had Mr. W. S. Richardson, of the Lennoxville Experimental Farm as guest speaker. Mr. Richardson showed slides taken

The WI Group of Seven!



The Art Class hard at work at the Short Course. Front to back: Mrs. Burke; Mrs. Poirier; Mrs. Ossington; Mrs. Ladd; Mrs. Dow; Mrs. LeBlanc (hidden); Mrs. Horner.



A good start with still life at the Art Class.

locally and some taken in California. Members of the Cercle des Fermieres were entertained at this meeting. This branch catered to a banquet for the Compton County Teachers' Association.

GASPE:

Wakeham completed twenty-two sewing kits for Unitarian Relief. The convener of Citizenship read the Branch History. The convener of agriculture showed how she used Javex containers for flower pots, and spools were brought in to be sent to Marcil. York — two more new members here. A thorough "spring cleaning" was done for an elderly parishioner, and a layette and sewing kits made for USC.

GATINEAU:

Aylmer East also sent spools to Marcil. Mrs. MacLean, convener of Agriculture gave a talk on "Corn" — how the Indians taught the first settlers to plant corn, prepare, cook the kernels for food. Eardley had a discussion on a memorial plaque for Luskville Hall, and Kazabazua made and modelled Easter hats. Lakeview had Mr. Walter Maheau of the Police Dept. as guest speaker. Rupert held a successful card party. Wakefield enjoyed two readings by Mrs. D. Geggie — Green Water, and Green Sky by the Well — by the Canadian author, Mavis Gallant. Wright were pleased to have Mrs. Ellard as their guest. In view of the ACWW conference she urged members to make a study of Australia.

JACQUES CARTIER:

Ste. Anne de Bellevue report an enjoyable joint County meeting with Vaudreuil. Mrs. McGibbon was guest, and she read a paper on "Rights and Responsibilities".

MEGANTIC:

Inverness distributed garden seeds to the children, and remembered a member in hospital with a potted plant. Kinners Mills also gave out seeds, and had talks on Agriculture.

MISSISQUOI:

Cowansville had an interesting discussion on harmful drugs. A delegation approached the mayor in connection with finding a suitable place for a bilingual library. He suggested that they find a house for sale and buy it! Dunham report that a member, Mrs. Oscar Selby has donated land to the branch, and the W.I. plaque will be erected on this. An article was read on the late Senator Cairine Wilson. Fordyce — a member gave a talk on Art, and showed over 40 pictures taken from paintings as far back as 1600. Stanbridge East are to order petunia plants which will be set out on their plot of land. Mrs. Sinclair MacIntosh was guest speaker, her subject being the Conference of Education which she attended as a delegate.

HISTORY OF TEMISKAMING INDIANS

(From page 140)

peau and four others have finished second and third year high. We also have two boys attending High School at Scollard Hall in North Bay, Ontario and another completed a six month's diesel training course at Montreal. We hope that our young people will obtain a share in the many prosperous industries of Canada.

I would like to quote a certain

newspaper item referring to the present appointment of Senator Gladstone to the Senate— "It is recognition surely long needed of a great race of people who called the woods and plains of North America their own thousands of years before the Europeans set foot on the Eastern shore."

ALGONQUINS OF TODAY:

A number of families have prosperous farms. Others gave up the attempt and support their families



Mrs. W. Parkes, president of Spooner Pond WI presenting a Life Membership to Mrs. B. Rodgers on the occasion of the 25th anniversary of the Branch.

PAPINEAU:

Lochaber report a pleasant visit with Mrs. Harvey and Miss Runnells. The Pennies for Friendship box was opened, and members were surprised to find \$7.65 inside.

PONTIAC:

Beech Grove gave a donation to the Red Cross Blood Bank in memory of a deceased member. Mrs. R. Campbell, Convener of Education read an article on the new regulations pertaining to women holding office on school boards in Quebec. Elmside had a reading on "Blanket Care" and are to donate linens and blankets to fire victims. Clarendon enjoyed a reading on Shawville Fair in 1856 by Mrs. Lloyd Connolly. Fort Coulonge enjoyed a paper on African violets, and a story on the "Meaning of Easter". Quyon held their 16th Anniversary dinner. Mrs. A. Turner, County President, was guest speaker, her subject being "Canada and Handicraftsmanship". Shawville attended a cooking demonstration before its meeting. Pennies for Friendship were collected. Stark's Corners also remembered Pennies for Friendship. The County President, Mrs. Arthur Turner held a meeting and social evening at her home for the executive, county conveners and presidents of the branches. Very interesting discussions took place, and it seems that a get-together like this is a good thing.

QUEBEC:

Valcartier enjoyed a talk by Mrs. Jean Langlais, a teacher from the School for Retarded Children in Quebec City. A request will be made to have signs put up marking the route to Valcartier Village.

(Continued next month)

by working at the nearby mines and Power Plant. Many are sought as Guides and Trappers.

The reserve is governed by one Chief, Mr. Henry Polson, Jr. and three Councillors, Richard Polson, Normand McBride and Aurel McBride. Mr. Robert Lamothe is the Federal Supervisor. The population of the Indians in the Temiskaming Region is 638, living at Hunter's Point, Kippawa, Winneway and Notre-Dame-du-Nord. The population of the reserve at Notre-Dame-du-Nord is 212.

BETTER FARMING DAY

Tuesday, June 26th, 1962

Rain or Shine!

Macdonald College

PROGRAM

BEGINNING

TEACHING — RESEARCH — EXTENSION

AT

GLENFINNAN
RINK

Demonstrations:

- use of chemicals in tap holes to improve maple sap yields.
- new strain of broilers developed at Macdonald College.
- use of radioactive tracers to determine fertilizer uptake of plants.
- electronic farm accounting.
- injury caused to plants by wireworms and eelworms.
- "Chemurgy", film showing role of chemistry in determining uses for agricultural by-products.
- services available from College through Extension Service.

10:00 A.M.

AND

CONTINUING

TOUR OF
COLLEGE
FARM

Forage Crop Varieties — Hay and Pasture Mixtures.
Development of Cereal Varieties.
Vegetable and Fruit Variety Trials.
Apple Tree Experiments.

ALL DAY

FILM
FEATURES
IN
FILM TENT

Raising Hogs the Market Wants — Trees Are A Crop —
Dynamic Careers in Agriculture — and others.

10:30 — 1:30 — 2:45

MAIN
BUILDING

SPECIAL LADIES PROGRAM

Demonstrations of Propagation and Care of House Plants.
Cake Decorating Demonstrations.

10:30 — 1:30 — 3:00

Tour of Morgan Arboretum — Demonstrations of Woodlot Management.

12:00 NOON

FOOD TENT
AREA

Welcome Address by Dr. H. G. Dion, Vice-Principal.

12:20

REGISTRA-
TION AT
FOOD TENT

Free Bar-B-Q tickets for everyone registered.

BAR-B-Q

Chicken — Courtesy of Canada Packers Limited.
Shur-Gain Feeds — Shur-Gain Fertilizers.
Chips — Courtesy of Humpty Dumpty.

Everybody Welcome!

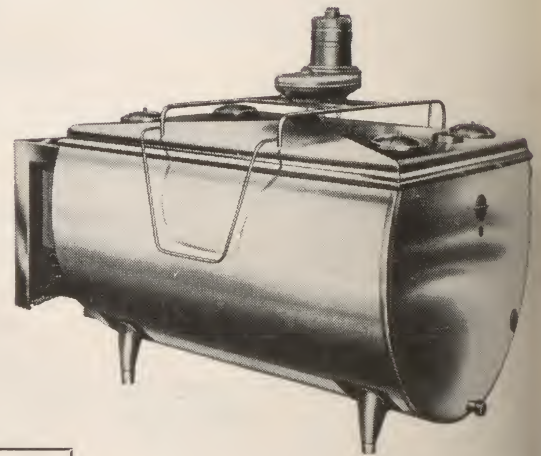
Here's why **DE LAVAL** Farm Tanks are preferred by Canadian Farmers!

There's more to making a Farm Tank than stainless steel and welding — you've got to know from actual farm experience exactly what farmers require to do the job right. That's what you get from De Laval and here's why: De Laval sold the first Farm Tank in Canada back in 1953. Since then we've learned the hard way how to build a Farm Tank most farmers prefer.

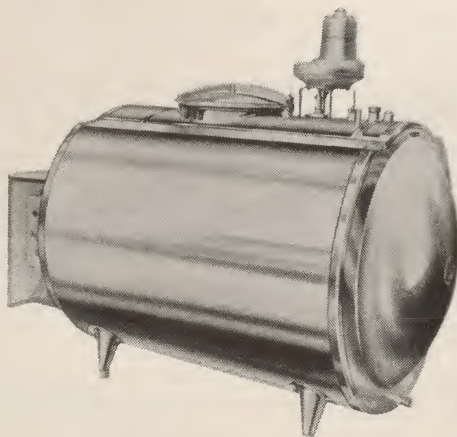
What's more, we can give you the service to back up our products made in our factory in Peterborough — and that's something you can't get from companies whose only interest is to sell a tank here or there.

Thousands of De Laval Farm Tanks are now operating on farms across Canada. De Laval is ready and able to service them, should it ever be required.

De Laval experience and service stands ready to back up your De Laval Farm Tank. There's a size and style to fit your need. See your nearest De Laval dealer.



Choose either of these De Laval Farm Tanks



"Speedway" Open Type

- Direct expansion
- Built-in compressor
- Stainless inside and outside
- One-piece cover
- Special agitator drive
- Wide range of sizes
- Made in Canada
- Superb quality
- Guaranteed service

De Laval Vacuum Type

- Sizes up to 8,000 pounds (Larger sizes to order)
- Direct expansion
- Ideal for Pipeline Milker, now or later on
- Compressors built-in or remote
- The ultimate in quality storage
- Stainless inside and outside
- Re-circulation washing
- Made in Canada
- Guaranteed Service



DE LAVAL